

CLAIMS

The invention is claimed as follows:

1. An image pickup apparatus, comprising:

a plurality of image pickups for individually picking up images of a plurality of
5 divisional image pickup objects of an image pickup object extending over a wide
range; and

a processor for receiving image information from said image pickups and
processing the image information to produce a single image by stitching images
presented by the image information;

10 said image pickups being disposed such that, where a point at which an
extension of a straight line component in an object space of a selected one of principal
rays passing the center of an aperture stop for a lens set provided in each of said image
pickup means which is positioned in a Gauss region intersects with an optical axis of
said lens set is set as an NP point, the NP points of said image pickup means are
15 collectively set within a predetermined radius region centered at one of the NP points.

2. An image pickup apparatus according to claim 1, wherein the radius of the
predetermined radius region is set to approximately 20 mm from the center which is
one of the NP points.

20 3. An image pickup apparatus according to claim 1, wherein said lens set of each
of said image pickups includes a plurality of lenses arranged in a plurality of stages
and is provided in a lens barrel, and the lens barrels of said image pickups are
collectively disposed on a single support member.

25 4. An image pickup apparatus, comprising:

a plurality of image pickups for individually picking up images of a plurality of
divisional image pickup objects of an image pickup object extending over a wide
range; and

30 a processor for receiving image information from said image pickups and
processing the image information to produce a single image by stitching images
presented by the image information;

said image pickups being disposed such that, where a point at which an extension of a straight line component in an object space of a selected one of principal rays passing the center of an aperture stop for a lens set provided in each of said image pickups which is positioned in a Gauss region intersects with an optical axis of said lens set is set as an NP point, the NP point is set to a position outside a lens barrel by disposing, intermediately of a light path which passes said lens set of the image pickups, a mirror member for bending incoming light at a predetermined angle in an inclined relationship by a predetermined angle so that the incoming light is bent and the NP points of said image pickup means are collectively set within a predetermined radius region centered at one of the NP points.

5. An image pickup apparatus according to claim 4, wherein the radius of the predetermined radius region is set to approximately 20 mm from the center which is one of the NP points.

6. An image pickup apparatus according to claim 4, wherein the inclination angle of said mirror member is set arbitrarily with respect the optical axis of said lens set.

7. An image pickup apparatus according to claim 4, further comprising additional image pickups having an NP point set within the predetermined radius region at a central position between said image pickup means and the mirror members which are arranged radially.